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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,554	11/06/2001	Robert Muir	10559-683002	5235

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FISH & RICHARDSON, PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
ROBBINS, JANET L	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/992,554	MUIR, ROBERT	
	Examiner	Art Unit	
	Janet Robbins	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-9,11-14,16 and 17* is/are rejected.

7)☐ Claim(s) *4,10 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 March 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 34 D2. The description refers to this part as DZ 34 (pg 3, ln 23; pg 5, ln 9).

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 62.

3. The drawings are objected to because in Figure 7, the numbers 324 and 326 should be switched to be consistent with the description (pg 11, ln 4, 7). Also, in Figure 1, item 12 should read "PROCESS" instead of "PROGRESS". Within item 12, elements 53 and 55 should be depicted in a manner which is consistent with elements 48, 50, and 52 by adding a descriptor in the black box.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 6, 7, 12 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Morrison (US Patent No. 5,992,553).

With respect to claims 1, 7, and 12, Morrison teaches a method for discovering a power level in a diode discovery circuit (col 1, ln 23-24; col 3, ln 24-25, ln 27-33; col 5, ln 54-57) comprising:

transmitting a pulse signal from a diode discovery device on a first line (Morrison discloses a controller in column 3, lines 28-31 and column 4, lines 7-9 of his patent. Applicant defines the "diode discovery device" as a controller on page 2, ln 20-21 of his specification, therefore the controller as disclosed by Morrison meets the limitations of the "diode discovery device" of the application.) (Morrison: Fig. 5; col 3, 54-56; col 7, ln 6-7);

receiving the pulse signal in the diode discovery device on a second line (Fig. 5; col 3, ln 56-57; col 6, ln 37-38; col 7, ln 12-13);

measuring a time to charge a capacitor in response to applying power to determine the power level (col 6, ln 59-65); and

applying power in response to comparing the transmitted pulse signal to the received pulse signal and measuring the time (col 3, ln 28-33, ln 62-64; col 4, ln 29-30; col 7, ln 59-64).

a voltage source connected to the controller (col 5, ln 55-58); and

a power converter linked to the diode detection circuit (col 3, ln 28-33).

With respect to claim 6, Morrison teaches repeating the transmitting and receiving (col 5, ln 52-55; col 6, ln 22-23; col 11, ln 17-20).

With respect to claim 17, Morrison teaches means for repeating the pulse signal (col 3, ln 51-54; col 6, ln 62-65; col 7, ln 10-13, ln 15-17, ln 55-58; col 11, ln 17-20).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2, 8, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrison (US Patent 5,992,553) in view of Geen et al. (US Patent 4,839,650). Morrison teaches all the limitations of parent claim 1 as described above, but does not

teach the pulse signal including a pseudo random generated 11-bit word. Geen et al. teaches a pseudo random binary sequence in the form of an 11-bit shift register (col 3, ln 40-42). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Morrison to include the pseudo random word of Geen et al. because the pseudo random word reduces the quantization error for data being sent (Geen et al.: abstract, ln 17-18).

8. Claims 3, 9, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrison (US Patent 5,992,553), in view of Geen et al. (US Patent 4,839,650), and further in view Rauch (US Patent 3,774,206). Morrison and Geen et al. teach all the limitations of parent claim 2 as set forth above, but they do not teach the pseudo random generated word generated by a recursive linear function. Rauch teaches producing a pseudo random signal by a linear maximal length shift register utilizing the linear recursive sequence (col 1, ln 33-34, ln 52-56). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Morrison and Geen et al. to include the recursive linear function of Rauch because it is easy to regenerate this type of signal (Rauch: col 2, ln 35-37).

9. Claims 5, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrison (US Patent 5,992,553), in view of Geen et al. (US Patent 4,839,650), and further in view Barker et al. (US PG Pub US2004/0170428A1). Morrison and Geen et al. teach all the limitations of parent claim 2 as described above, but they do not teach the pseudo random generated word seeded by a port number. Barker et al. teaches seeding a pseudo random number with the port number (paragraph 0016, 0034). It

would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Morrison and Geen et al. to include the port number as done by Barker et al. because adding the port number makes the signal unique to each transmitter (paragraph 0014, 0033).

Allowable Subject Matter

10. Claims 4, 10, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Walker et al. (US PG Pub US2003/0014658A1) describes a system and method of verifying system attributes which includes port numbers seeding a pseudo random number generator.

Armstrong, II et al. (US Patent 6,377,028) describes a system for charging monitoring batteries for a microprocessor based method.

Zur (US Patent 6,618,673B2) describes optimization of irrigation cycles in which a capacitor charge time is measured.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Robbins whose telephone number is 571-272-8584. The examiner can normally be reached on weekdays from 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

JLR
June 17, 2005

MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800